

Remarks/Arguments:

In the Advisory Action of May 18, 2004, the Examiner directed Applicants to Mahapatra (US 4,886,538). It is respectfully submitted that claims 1, 2, 10, and 20, as amended, are patentable over Mahapatra for the reasons set forth below. New claims 21 and 22 are similar to claims 1 and 20, but contain alternative features that have been deleted in claims 1 and 20, as requested by the Examiner.

Mahapatra discloses planar waveguide channels in which the refractive index varies oppositely of the channel geometry along the channel length, Abstract.

The present invention, as recited in amended claim 1 and new claim 21, contains a feature which is neither disclosed, nor suggested by the Mahapatra, namely:

...a cross section of the planar optical waveguide is substantially constant along a direction of light propagation.

The present invention, as recited in amended claim 20 and new claim 22, contains a feature which is neither disclosed, nor suggested by the Mahapatra, namely:

... the refractive index in a part of said material varies substantially periodically in a direction of light propagation and is substantially continuously monotone increasing or decreasing in a direction substantially perpendicular to said direction of light propagation.

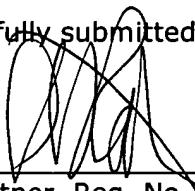
Based on the foregoing amendment and remarks, Applicants respectfully submit that claims 1, 2, 10, and 20, as amended, and new claims 21 and 22 are in condition for allowance.

Appln. No.: 09/935,027
Amendment Dated: June 29, 2004
Reply to Office Action of: March 29, 2004

MTS-3270US

Accordingly, reconsideration and allowance of all pending claims are respectfully requested.

Respectfully submitted,


Allan Ratner, Reg. No. 19,717
Lowell Carson, Reg. No. 48,548
Attorneys for Applicants

LC/lc/

Dated: June 29, 2004

P.O. Box 980
Valley Forge, PA 19482
(610) 407-0700

The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. 18-0350 of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

June 29, 2004

LC_I:\MTS\3270US\AMEND03.DOC